

REMARKS

Claims 1-4 are pending in this application. Applicants amend claims 1-3. Applicants neither add nor cancel any claims.

The Examiner objected to the abstract of the disclosure because the abstract is over 150 words. Applicants amend the abstract to comply with the rules of the USPTO. As such, withdrawal of this objection is respectfully submitted.

The Examiner objected to claims 2 and 3 due to informalities, and states that “the oval section” should be changed to - - the oval cross section - - and “the rectangular section” should be changed to - - the rectangular cross section - -. Applicants amend claims 2 and 3 to comply with the Examiner’s suggestions. As such, withdrawal of the Examiner’s objections is respectfully requested.

The Examiner rejected claims 1-3 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicants amend claim 1 to recite -- a longitudinal axial direction of the cylindrical body --. As such, withdrawal of the Examiner’s objection to claim 1 is respectfully requested.

Applicants respectfully traverse the Examiner’s §112 rejection of claims 2 and 3. The specification of the invention complies with the standard definition of “major axis” (i.e., the line passing through the foci, center, and vertices of an ellipse.) In particular, page 14, lines 8-13, describes “[t]he rod-like stationary member 11 is oval in section and is arranged in such a manner that the major axis (long axis) of the oval extends vertically in this embodiment, thereby providing increased rigidity against vertical bending moment and thus allowing the increase in

length of the rod-like stationary member 11.” Accordingly, “the major axis” is definite and the Examiner’s rejection should be withdrawn.

The Examiner rejected claim 1 under 35 U.S.C. 103(a) as being unpatentable over *Makoto et al.* (JP 08-275495) in view of Applicant admitted prior art (*AAPA*). The Examiner acknowledged that *Makoto* fails to teach a cylindrical body made of a non-magnetic material and plate-like segment magnets accommodated in the cylindrical body. However, the Examiner asserted that the *AAPA* does teach a cylindrical body (111) made of non-magnetic material (stainless steel) and plate-like segment magnets accommodated in the cylindrical body (figure 1) for holding the stack of magnets in the linear motor. In view of this, the Examiner stated that it would have been obvious to modify *Makoto*’s linear motor with the cylindrical body made of non-magnetic material and the magnets accommodated in the cylindrical body as taught by *AAPA*, because doing so would hold magnets in together forming stack in a linear motor. In view of the following remarks, Applicants respectfully traverse the Examiner’s §103(a) rejection of claim 1.

The linear motors described in *AAPA* and *Makoto* are configured of magnetization to a rod-like member, which differ from the configuration that a rod-like member having a cylindrical body made of a non-magnetic material and a plurality of plate-like segment magnets accommodated in the cylindrical body such that they are stacked in the axial direction of the cylindrical body as recited in claim 1 of the above-identified application. Applicants direct the Examiner’s attention to paragraph 43 of the *AAPA* (JP 11150973 A), which discloses that “the shaft member 10 is made of machinable and magnetizable materials (for example, Fe-Cr-Co

metal, Manganese aluminum (MnAl)). The cross section of the shaft member 10 is formed into a round shape...The shaft member 10 is magnetized to be regular pitched preferably to be substantially rectangular magnetic flux density distribution along its longitudinal direction as shown in FIG6.” [paragraph 0043, AAPA].

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990.) Even if one were to combine the references, the resultant combination would not teach the claimed invention. Neither reference teaches nor suggests a linear motor having a “rod-like member (that) comprises the cylindrical body having a substantially oval or substantially rectangular cross section and the plurality of segment magnets having a substantially oval or substantially rectangular plate shape which are accommodated in the cylindrical body” [claim 1].

By providing such a structure, the linear motor of the above-identified application is able to generate increased thrust without having to increase the diameter of the section of the cylindrical rod-like member. As indicated in the specification, “Since the rod-like member has a substantially oval or substantially rectangular section...the length of the major axis of the substantially oval or the length of the long side of the substantially rectangle is increased while the width of the rod-like member is the same as the width of a rod-like member having a circular section. Therefore, the surface of the segment magnet is increased even with the same width of the rod-like member having the circular section, thereby achieving the large thrust of the linear motor” [p. 4, line 25 – p. 5, line 6]. Accordingly, because the cited references lack this structural

limitation, the combination of *AAPA* and *Makoto* will suffer from the same problems disclosed in the specification. Namely, large thrust not being achieved due to the limitation on increase in diameter of the section of the cylindrical rod-like stationary member [p. 3, lines 11-21].

Applicants acknowledge and appreciate the Examiner's indication that claims 2 and 3 would be allowable if amended to overcome the rejection under 35 U.S.C. §112 and to include all of the limitations of the base claim and any intervening claims.

In view of the aforementioned amendments and accompanying remarks, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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